

CLAIMS

I claim:

- 1 1. An assembly for identifying and tracking an asset comprising:
 - 2 a responding device adapted to be connected to an asset; and
 - 3 an antenna electrically connected to said responding device.
- 1 2. The assembly of claim 1 wherein said responding device is a radio frequency
2 identification device.
- 1 3. The assembly of claim 2 wherein said radio frequency identification device
2 is passive.
- 1 4. The assembly of claim 1 wherein said antenna extends substantially around
2 the entire outer periphery of said asset.
- 1 5. The assembly of claim 1 wherein said asset has a groove in the outer surface
2 thereof and said responding device and said antenna are positioned within said
3 groove.
- 1 6. The assembly of claim 5 wherein said responding device is a radio frequency
2 identification device.
- 1 7. The assembly of claim 6 wherein said radio frequency identification device
2 is passive.
- 1 8. The assembly of claim 5 wherein said groove extends substantially around
2 the entire outer periphery of said asset.
- 1 9. The assembly of claim 8 wherein said groove is generally annular.
- 1 10. The assembly of claim 8 wherein said antenna extends substantially around
2 the entire outer periphery of said asset.
- 1 11. The assembly of claim 5 further comprising:
 - 2 a sealant positioned in said groove so as to surround and secure said
3 responding device and said antenna in said groove.
- 1 12. The assembly of claim 1 further comprising:
 - 2 a second antenna electrically connected to said responding device.
- 1 13. The assembly of claim 12 wherein said first antenna extends along the outer
2 periphery of said asset and said second antenna extends along the inner
3 periphery of said asset.
- 1 14. The assembly of claim 13 wherein said responding device is positioned
2 within a hole in said asset.

- 1 15. The assembly of claim 13 wherein at least a portion of the interior of said
2 asset has screw threads.
- 1 16. The assembly of claim 13 wherein said second antenna is embedded in a
2 ring having a threaded outer surface that is mater with said screw threads of said
3 interior of said asset.
- 1 17. An assembly for use as a fluid conduit comprising:
2 a tubular;
3 a responding device connected to said tubular; and
4 an antenna electrically connected to said responding device.
- 1 18. The assembly of claim 17 wherein said responding device is a radio
2 frequency identification device.
- 1 19. The assembly of claim 18 wherein said radio frequency identification device
2 is passive.
- 1 20. The assembly of claim 17 wherein said antenna extends substantially
2 around the entire outer periphery of said tubular.
- 1 21. The assembly of claim 17 wherein said tubular has a groove in the outer
2 surface thereof and said responding device and said antenna are positioned
3 within said groove.
- 1 22. The assembly of claim 21 wherein said responding device is a radio
2 frequency identification device.
- 1 23. The assembly of claim 22 wherein said radio frequency identification device
2 is passive.
- 1 24. The assembly of claim 21 wherein said groove extends substantially around
2 the entire outer periphery of said tubular.
- 1 25. The assembly of claim 24 wherein said groove is generally annular.
- 1 26. The assembly of claim 24 wherein said antenna extends substantially around
2 the entire outer periphery of said tubular.
- 1 27. The assembly of claim 21 further comprising:
2 a sealant positioned in said groove so as to surround and secure said
3 responding device and said antenna in said groove.
- 1 28. The assembly of claim 17 further comprising:
2 a second antenna electrically connected to said responding device.

- 1 29. The assembly of claim 28 wherein said first antenna extends along the outer
2 periphery of said tubular and said second antenna extends along the inner
3 periphery of said tubular.
- 1 30. The assembly of claim 29 wherein said responding device is positioned
2 within a hole in said tubular.
- 1 31. The assembly of claim 29 wherein at least a portion of the interior of said
generally tubular body has screw threads.
- 1 32. The assembly of claim 29 wherein said second antenna is embedded in a
2 ring having a threaded outer surface that is mated with said screw threads of said
3 interior of said tubular.
- 1 33. The assembly of claim 17 wherein said tubular is drill pipe and the fluid
2 conduit is a drill string for use in a subterranean well.
- 1 34. The assembly of claim 17 wherein said tubular is tubing and the fluid conduit
2 is a tubing string for use in a subterranean well.
- 1 35. The assembly of claim 17 wherein said tubular is pipe and the fluid conduit
2 is a pipeline.
- 1 36. The assembly of claim 17 further comprising:
2 a tool connected to said tubular;
3 a second responding device connected to said tool; and
4 a second antenna electrically connected to said responding device.
- 1 37. An assembly for use as a fluid conduit comprising:
2 a tubular;
3 a collar releasably secured to one end of said tubular, said collar
4 comprising a generally tubular body;
5 a responding device connected to said generally tubular body; and
6 an antenna electrically connected to said responding device.
- 1 38. The assembly of claim 37 wherein said responding device is a radio
2 frequency identification device.
- 1 39. The assembly of claim 38 wherein said radio frequency identification device
2 is passive.
- 1 40. The assembly of claim 37 wherein said antenna extends substantially
2 around the entire outer periphery of said generally tubular body.

- 1 41. The assembly of claim 37 wherein said generally tubular body has a groove
2 in the outer surface thereof and said responding device and said antenna are
3 positioned within said groove.
- 1 42. The assembly of claim 41 wherein said responding device is a radio
2 frequency identification device.
- 1 43. The assembly of claim 42 wherein said radio frequency identification device
2 is passive.
- 1 44. The assembly of claim 41 wherein said groove extends substantially around
2 the entire outer periphery of said generally tubular body.
- 1 45. The assembly of claim 44 wherein said groove is generally annular.
- 1 46. The assembly of claim 44 wherein said antenna extends substantially around
2 the entire outer periphery of said generally tubular body.
- 1 47. The assembly of claim 41 further comprising:
2 a sealant positioned in said groove so as to surround and secure said
3 responding device and said antenna in said groove.
- 1 48. The assembly of claim 37 further comprising:
2 a second antenna electrically connected to said responding device.
- 1 49. The assembly of claim 48 wherein said first antenna extends along the outer
2 periphery of said generally tubular body and said second antenna extends along
3 the inner periphery of said generally tubular body.
- 1 50. The assembly of claim 49 wherein said responding device is positioned
2 within a hole in said generally tubular body.
- 1 51. The assembly of claim 49 wherein at least a portion of the interior of said
2 generally tubular body has screw threads.
- 1 52. The assembly of claim 49 wherein said second antenna is embedded in a
2 ring having a threaded outer surface that is mated with said screw threads of said
3 interior of said generally tubular body.
- 1 53. The assembly of claim 37 wherein said tubular is drill pipe and the fluid
2 conduit is a drill string for use in a subterranean well.
- 1 54. The assembly of claim 37 wherein said tubular is tubing and the fluid conduit
2 is a tubing string for use in a subterranean well.

1 56. A process for identifying and tracking assets comprising:
2 positioning a transceiver in proximity to an asset having a responding
3 device and an antenna electrically connected to said responding device so as
4 to permit communication between said transceiver and said responding device
5 via said antenna.

1 58. The process of claim 56 wherein said asset is generally tubular and said
2 transceiver is passed through the interior of said asset.

2 passing a second transceiver through the interior of said asset.

1 61. The process of claim 60 wherein said radio frequency identification device
2 is passive.

2 positioning a transceiver and a tubular having a responding device and
3 an antenna electrically connected to the responding device in proximity to each
4 other without regard to the rotational orientation of said tubular so as to permit
5 communication between said transceiver and said responding device via said
6 antenna.

1 64. The process of claim 62 wherein said asset is generally tubular and said
2 transceiver is passed through the interior of said asset.

2 passing a second transceiver through the interior of said asset.

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1 67. The process of claim 66 wherein said radio frequency identification device
2 is passive.

1 68. A process for identifying and tracking assets comprising:
2 positioning an asset having a responding device connected thereto within
3 a transceiver having a generally annular antenna so as to permit communication
4 between said transceiver and said responding device via said antenna.

1 69. The process of claim 68 wherein said asset is a tubular and said step of
2 positioning occurs without regard to the rotational orientation of said tubular.